

**Meeting of the Central Valley Flood Protection Board
September 23, 2010**

Staff Report – Encroachment Permit

**City of Fairfield
Water Supply Line, Solano County**

1.0 – ITEM

Consider approval of Permit No. 18585 (Attachment B)

2.0 – APPLICANT

City of Fairfield

3.0 – LOCATION

The project is located in Fairfield.
(Laurel Creek, Solano County, see Attachment A)

4.0 – DESCRIPTION

Applicant proposes to install (bore and jack) a 36-inch-diameter, water transmission line (encased with a 54-inch-diameter steel pipe) under and across the channel of the Laurel Creek Bypass.

5.0 – PROJECT ANALYSIS

The new 36-inch-diameter potable water transmission line will be installed by a conventional bore and jack method. A jacking pit will be placed on the west side of the Laurel Creek Bypass and a receiving pit will be placed on the east side of Laurel Creek Bypass. A 54-inch-diameter casing pipe will be installed from the jacking pit to the receiving pit a minimum of 5 feet below the concrete foundation that supports the six (6) 84-inch-diameter storm drain pipes that replace the entire Laurel Creek Bypass channel at this project location. The external voids around the casing pipe will be grouted. The 36-inch-diameter potable water line will then be installed through the casing pipe and

the annular space between the pipes will be completely grouted. The pits will then be backfilled. This method of installation should have no impacts on the existing flood water conveyance structure for the Laurel Creek Bypass flows. The pipe is being installed along the south side of the eastbound traffic lane for Railroad Avenue.

5.1 – Hydraulic Analysis

No hydraulic analysis is needed as there is no floodway at pipe crossing location

5.2 – Geotechnical Analysis

No geotechnical analysis needed because the method and location of the installation should have no impacts on the flood water conveyance structure.

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

The U. S. Army Corps of Engineers 208.10 comment letter has not yet been received for this application. Upon receipt of a favorable letter and review by Board staff it will be incorporated into the permit as Exhibit A.

There is no non-fed endorsing agency for this application.

7.0 – PROPOSED CEQA FINDINGS

Board staff has prepared the following CEQA Findings:

The Board, as a responsible agency under CEQA, has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) and Mitigation Monitoring Plan (SCH Number: 2006012062, September 2005) for the East-West Water Transmission Pipeline Project, prepared by the lead agency, the City of Fairfield. These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvpfb.ca.gov/meetings/2010/9-23-2010agenda.cfm> under a link for this agenda item. The documents are also available for review in hard copy at the Board and County offices.

The City of Fairfield has determined that the project would not have a significant effect on the environment and filed a Notice of Determination on March 14, 2006 with the

State Clearinghouse and the Solano County Clerk. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's Mitigation Monitoring Plan and address impacts to air quality, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, noise, traffic and transportation, utilities and service systems. The description of the mitigation measures are further described in the adopted Mitigation Monitoring Plan.

8.0 – SECTION 8610.5 CONSIDERATIONS

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

The proposed new pipe will have no impacts on the State Plan of Flood Control.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

This project should not be impacted by any foreseeable changes in hydrology, climate and development within the applicable watershed.

9.0 – STAFF RECOMMENDATION

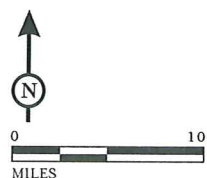
Staff recommends that the Board adopt the CEQA findings and direct staff to file a Notice of Determination with the State Clearinghouse and approve the permit conditioned upon receipt of a favorable U. S. Army Corps of Engineers comment letter.

10.0 – LIST OF ATTACHMENTS

- A. Location Maps and Photos
- B. Draft Permit No. 18585

Design Review:	Steve Dawson
Environmental Review:	James Herota
Document Review:	Len Marino P.E.

LSA

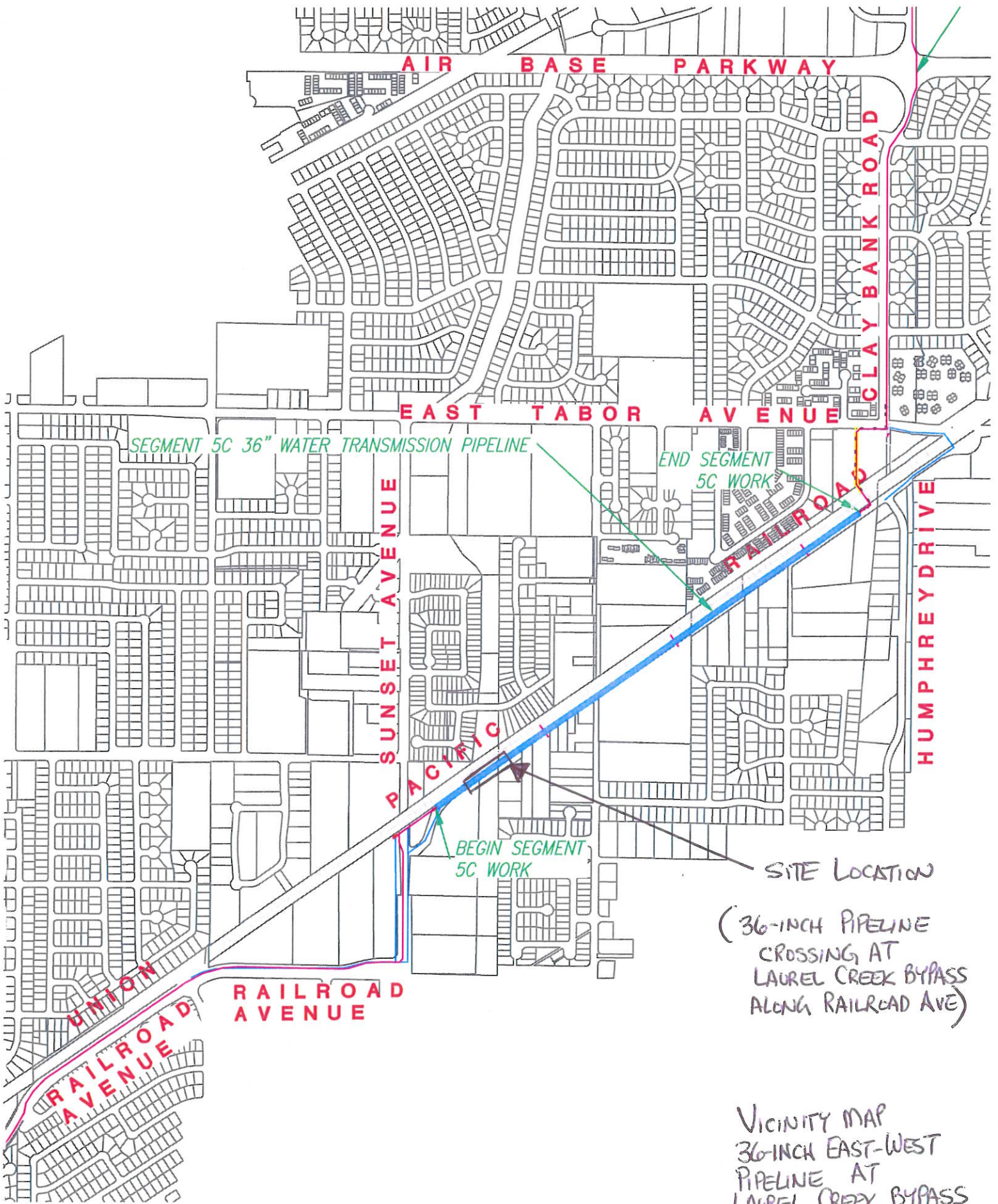


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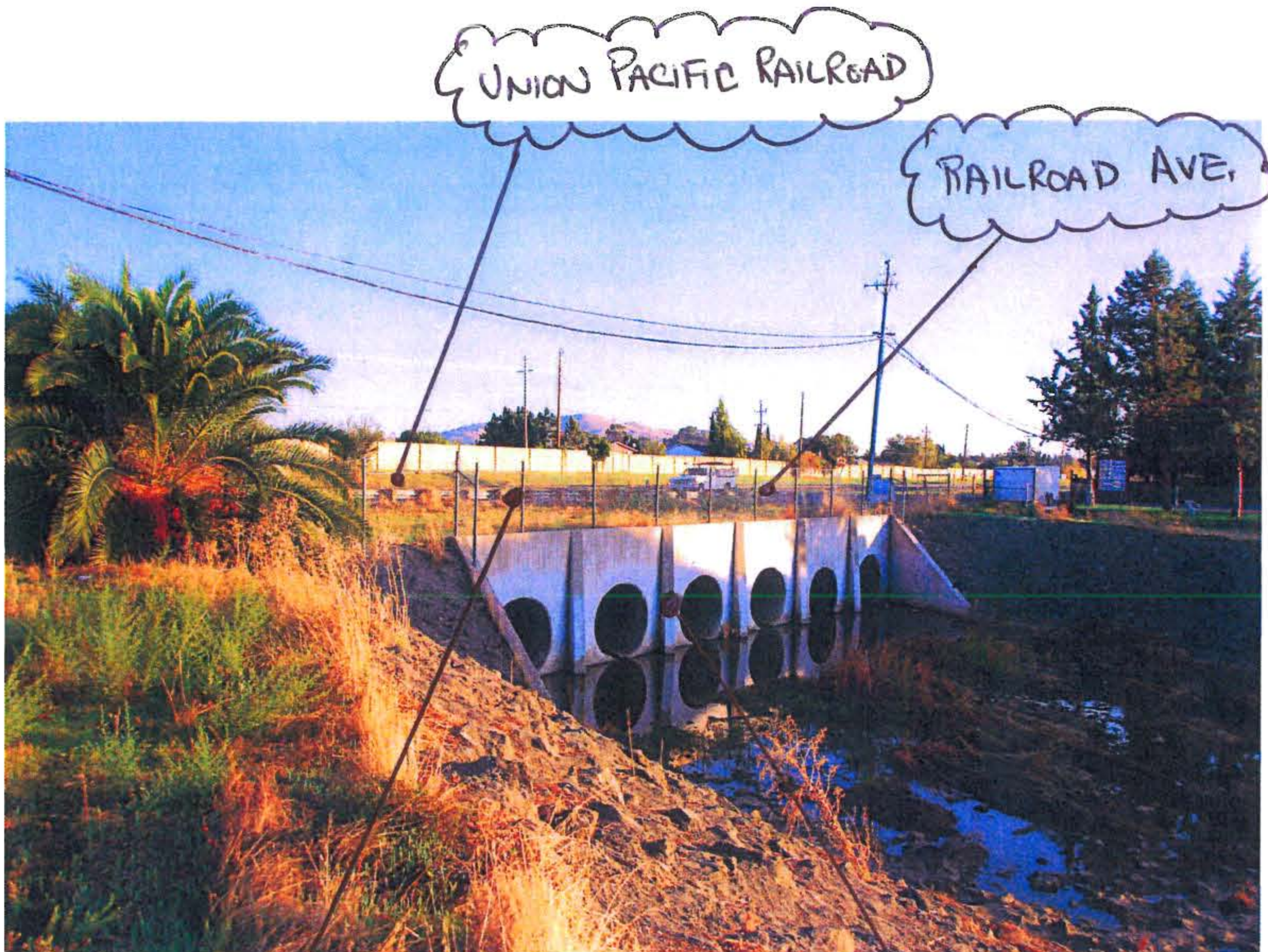
*East-West Water Transmission Pipeline
Fairfield, Solano County, California*

Project Location



VICINITY MAP
 36-INCH EAST-WEST
 PIPELINE AT
 LAUREL CREEK BYPASS
 (SHEET 1 OF 3)

LAUREL CREEK BYPASS SOUTH SIDE OF RAILROAD AVE., LOOKING NORTH



PROPOSED 36-INCH WATER PIPELINE
LOCATED NORTH OF HEADWALL SHOWN
UNDER EXISTING STORM DRAIN ALONG
MIDDLE PORTION OF RAILROAD AVE.
(SEE PREVIOUS SHEET 2 OF 3 PLAN/PROFILE)

6-EACH EXISTING
84-INCH DIAMETER
STORM DRAINS

EAST-WEST 36-INCH WATER TRANSMISSION PIPELINE
(SEGMENT 5C)

LAUREL CREEK BYPASS

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DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18585 BD

This Permit is issued to:

City of Fairfield
PO Box 4040
Attn: George Hicks
Fairfield, California 94533

To install (bore and jack) a 36-inch-diameter, water transmission line (encased with a 54-inch-diameter steel pipe) under and across the channel of the Laurel Creek Bypass. The project is located in Fairfield (Section 30, T5N, R1W, MDB&M, Laurel Creek, Solano County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____

Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15

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days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18585 BD

THIRTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

FOURTEEN: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance.

FIFTEEN: The permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

SIXTEEN: The Central Valley Flood Protection Board and Department of Water Resources shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

SEVENTEEN: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

EIGHTEEN: The permittee shall be responsible for repair of any damages to the floodway channel or other flood control facilities due to construction, operation, or maintenance of the proposed project.

NINETEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood

Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion

TWENTY: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

TWENTY-ONE: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-TWO: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Central Valley Flood Protection Board.

TWENTY-THREE: The 54-inch-diameter casing pipe crossing below the six existing concrete encased 84-inch-diameter storm water drains that replace the Laurel Creek Bypass Channel at this location shall be buried with a minimum of 5 feet of cover.

TWENTY-FOUR: The casing pipe shall have grout fittings installed in a spiral pattern on 4-foot centers. Any voids along the outside of the casing pipe and the annular space between the casing pipe and the 36-inch-diameter water pipe shall be completely pressure filled with grout.

TWENTY-FIVE: Entrance and exit points of the jacking and receiving shafts shall be located as shown on the submitted drawings.

TWENTY-SIX: Grouting pressures shall be adequate to assure complete filling of the voids without causing hydrofracturing.

TWENTY-SEVEN: Cementitious grout shall be a neat cement, prepared with Portland cement and clear, potable water. Up to 5 percent clean, fine sand, by dry weight, may be added as an aggregate. Up to 5 percent bentonite or pozzolan, by dry weight, may be added as a lubricant. Use of other mixtures and/or accelerators shall be discussed with DWR inspector(s) prior to final decision. Grout mixing equipment shall be adequate to assure the complete and uniform mixing of grout materials.

TWENTY-EIGHT: Grouting fluid pressures shall be adequate to assure complete filling of voids surrounding the pipeline. Pressure and flows shall be carefully monitored and controlled to minimize inadvertent grout returns and the potential for hydrofracturing. Grouting shall be completed within 72 hours of bore completion.

TWENTY-NINE: The casing and carrier pipes must be separated from parallel pipelines, conduits, and utility lines by a minimum of 12 inches, or the diameter of the largest pipeline, conduit, or utility

line, whichever is larger, to a maximum of 36 inches.

THIRTY: All pipe joints within the levee section shall be butt welded.

THIRTY-ONE: The permittee shall ensure that all pipe joints are watertight.

THIRTY-TWO: Pipes and joints shall be designed to withstand all anticipated loading conditions.

THIRTY-THREE: The permittee shall be responsible for all damages due to settlement, consolidation, or heave from any construction-induced activities.

THIRTY-FOUR: During construction of the project, any and all anticipated or unanticipated conditions encountered which may impact channel integrity or flood control shall be brought to the attention of the Flood Project Inspector immediately and prior to continuation. Any encountered abandoned encroachments shall be completely removed or properly abandoned under the direction of the Flood Project Integrity and Inspection Branch Inspector.

THIRTY-FIVE: All debris generated by this project shall be disposed of outside the channel.

THIRTY-SIX: The project site shall be restored to at least the condition that existed prior to commencement of work.

THIRTY-SEVEN: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated September XX, 2010, which is attached to this permit as Exhibit A and is incorporated by reference.